

## ABSTRACT

A system, method and computer readable medium containing programming instructions for optimizing command execution in a database system is disclosed.

According to one embodiment of the present invention, the database system stores data records on data pages, and provides a log sequence number for each data page. The log sequence number indicates when any of the data records contained in the data page were last modified. A data record is selected from a data page and copied to a second storage area.

The present invention verifies that the selected data record has not been modified since the time that it was copied to the second storage area based upon the log sequence number, and then executes the command.

Advantages of the present invention include a reduction in processing time of database UPDATE or DELETE operations based on scrollable cursors where there is support for optimistic concurrency.